DOCUMENT RESUME

ED 175 322 HE 011 601

AUTHOR Dickmeyer, Nathan; Hughes, K. Scott
TITLE Self-Assessment of Financial Condition. A Preliminary Edition of a Workbook for Small Independent Institutions.
INSTITUTION American Council on Education, Washington, D.C.; National Association of Coll. and Univ. Business Officers, Washington, D.C.
SPONS AGENCY National Center for Education Statistics (DHEW), Washington, D.C.
PUB DATE Jun 79
NOTE 60p.
AVAILABLE FROM National Association of College and University Business Officers, One Dupont Circle, Washington, DC 20036

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Economic Factors; Educational Finance; *Evaluation Methods; *Financial Problems; Higher Education; *Private Colleges; *Small Colleges; *Statistical Analysis
IDENTIFIERS *Financial Indicators; *Self Evaluation (Institutions)

ABSTRACT

A relatively simple method for self-assessment of the financial condition of small independent colleges is presented. The workbook is intended to assist trustees, presidents, and business officers in small independent colleges in evaluating their institution's financial condition. A check list of necessary evaluations and a guide for interpreting the evaluations are provided. The approach is analytic and diagnostic, promoting an assessment of the institution's financial strengths and weaknesses rather than a single overall "financial health" indicator. The theory and framework of the evaluation process are composed of three separate analytic steps or tiers, of which only the first, which involves examination of a limited number of easily calculated statistics, is considered in this preliminary version of the workbook. If the statistics suggest a sound financial condition, no further analysis is required. The worksheets used for calculating the statistics of the first tier are presented, and each statistic's purpose and significance are explained, with a step-by-step method for the calculation. A set of definitions is also provided to facilitate data gathering. Once the statistic has been calculated, the significance of the value of the statistic is also explained. (SC)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

ED175322

# SELF-ASSESSMENT OF FINANCIAL CONDITION

*A preliminary edition of a workbook for small independent institutions*

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

NACUBO

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

by
Nathan Dickmeyer
K. Scott Hughes

National Association of College and University Business Officers • American Council on Education

HE 011 601

# SELF-ASSESSMENT OF FINANCIAL CONDITION

---

A preliminary edition
of a workbook for small
independent institutions

by

Nathan Dickmeyer
Director, Financial Measures Project
ACE

K. Scott Hughes
Director, Financial Management Center
NACUBO

The workbook was developed under the guidance
of the Task Force on Developing a Preliminary
Procedure for Evaluating the Financial Condition
of Small Independent Institutions, under a
subcontract NACUBO has with the American Institutes
for Research in the Behavioral Sciences and
funded by the National Center for Education Statistics.

June, 1979
Washington, D.C.

© by the National Association of
College and University Business Officers
One Dupont Circle
Washington, D.C. 20036

All rights reserved

Printed in the United States of America

CONTENTS


| | Page |
|---|---|
| Preface | i |
| Introduction | 1 |
| Chapter 1: The Framework for Self-Assessment | 5 |
| Philosophy of Financial Strength | 5 |
| Theory for Small Independent College Financial Condition | 7 |
| Financial Strength | 8 |
| Estimated Risk | 9 |
| Changes Affecting Financial Resources | 9 |
| Changes in Nonfinancial Resources | 9 |
| Chapter 2: Calculation of the Statistics | 11 |
| Section A: College Profile | 12 |
| Section B: Data Worksheet | 13 |
| Section C: Definition of Terms | 15 |
| Section D: Financial Strength | 17 |
| Section E: Estimated Risk | 25 |
| Section F: Changes Affecting Financial Resources | 33 |
| Section G: Changes in Nonfinancial Resources | 45 |
| Appendix | 54 |

## PREFACE

This document is the preliminary edition of a workbook developed by the National Association of College and University Business Officers Financial Management Center and the American Council on Education Economics and Finance Unit under a subcontract with the American Institutes for Research in the Behavioral Sciences, which has the prime contract with the National Center for Education Statistics.

The purpose of the workbook is to provide a relatively simple method for self-assessment of the financial condition of small independent colleges. The framework used for the workbook is based on the collective wisdom and experience of a group of business officers from small colleges. These persons have served on accreditation committees and acted as private consultants in addition to seeing to the financial viability of their own institutions. They formed the task force for the project and directed the development effort. The members of the task force are:

Thomas O. James, Chairman
Vice President for Financial Affairs
Birmingham Southern College

James W. Bryant
Retired President
The Robert R. Moton Institute, Inc.

William T. Haywood
Vice President for Business and Finance
Mercer University

James Jordan
Program Advisor to the President
American Council on Education

B. A. Little
Director
Moton Management Improvement Program

Robert W. Meyer
Vice President for Business Affairs
Ohio Wesleyan University

John Minter
President
John Minter Associates

Charles C. Teamer
Vice President for Fiscal Affairs
Dillard University

Wayne Wormley
Director of Institutional Research
Fisk University

Marwin O. Wrolstad
Vice President for Business Affairs and Treasurer
Lawrence University

Paul Brubaker, Consultant
Senior Staff Analyst
Systems Research, Inc.

Douglas J. Collier, Consultant
Senior Staff Associate
National Center for Higher Education Management Systems

Steven M. Jung, Project Officer
Principal Research Scientist
American Institutes for Research in the Behavioral Sciences

The workbook was developed with the assistance of eight small independent colleges. The cooperation of the officers of those colleges contributed significantly to the content of the workbook. As a condition of the full participation of the institutions, their identities are being held in confidence.

The next stage in the development of the self-assessment workbook is to field test the analytic methodology. Also, significant development work is needed to complete the second and third tier analysis described in Chapter 1.

# INTRODUCTION

This document is a preliminary self-assessment workbook intended to assist trustees, presidents and business officers in small independent colleges in evaluating their institution's financial condition. This version of the workbook is preliminary because it covers only one of three tiers of analysis and requires further testing.

The organization of the self-assessment workbook and the concepts for evaluating the financial condition of small independent colleges were developed under the leadership of a task force of business officers and consultants. The workbook design was also shared with eight small colleges where their trustees, presidents, business officers and other officials used and evaluated the workbook and helped mold it into its current form.

The evaluation of a college's financial condition involves a number of specific tasks, which are described in the remainder of this document. Some of these require subjective evaluations; others are data-oriented, relying on information obtained from the institution's records.

This preliminary workbook provides a check list of necessary evaluations and a guide for interpreting the evaluations. The approach is analytic and diagnostic in that the workbook does not lead to a single overall "financial health" indicator, but rather promotes an assessment of the institution's financial strengths and weaknesses in many areas.

The strength of the workbook lies not in the number of indicators presented, but in the supporting theory and the logic of their interconnection and meaning. Thus, the theory and framework of the evaluation process needs to be understood before actual evaluation begins. The theory and framework, which are described in greater detail in Chapter 1, are composed of three separate analytic steps or tiers. The first involves examination of a limited number of easily calculated statistics. If the statistics suggest a sound financial condition, there is no need to continue the analysis. However, if the statistics reflect the possibility of financial difficulty, the second tier provides a systematic method for expanding the analysis to the causes of financial concern. The second level begins a diagnostic process that suggests the specific causes of financial concern. The third tier describes possible management improvement techniques that may prove helpful in correcting the deficiencies identified in the prior analysis.

Chapter 2 of this workbook contains the worksheets used for calculating the statistics of the first tier. Each statistic's purpose and significance are explained, with a step-by-step method for the calculation. A set of definitions is also provided to facilitate data gathering. Once the statistic has been calculated, the workbook format provides the opportunity to explain the significance of the value of the statistic. Space is also set aside for the eventual presentation of peer group information.

The description of the second and third tiers has not been completed; it will be developed in subsequent research efforts, to be presented in a separate document.

## Limitations

Before beginning the self-assessment of a college's financial condition, a number of qualifications needs to be explained. No technique provides perfect measurements; in some cases the statistics described in this workbook design may prove inadequate for a particular college.

Some specific limitations include:

1. The statistics should not be taken at face value. For each statistic, one should try to understand why it has the value it has; the assumptions should be written. If this is done for each statistic, a pattern may develop; or conversely, some assumptions may be seen as inconsistent and may need to be rethought.

2. Comparison of an institution's statistics with those of peer institutions should not be assumed to automatically indicate a good, bad, or average condition. For example, if 90% of current fund revenues are from tuition, and an institution's group averages only 65%, that institution is not automatically in a financially weak position. This statistical comparison does indicate, however, that the institution's dependence on tuition should be explored further to better understand the differences.

3. This self-assessment methodology is not an appropriate means for the allocation of funds by external agencies such as governmental bodies or private foundations. The sole intent of the workbook approach is to provide an analytic tool that institutional officers can use for evaluating their college's financial condition.

4. The workbook is limited in that it looks only at the college's financial condition. The statistics identified here should be incorporated into an overall evaluation of the institution's mission, academic program offerings, recruitment efforts, financial aid offerings, student counseling, etc.

5. At this stage of the workbook's development, only a limited number of colleges have used the material. The design is experimental; subsequent editions will be more complete, with peer group information provided for further analysis of the significance of the statistics.

6. Statistics are the shadows on the wall of the cave; they can only provide reflections of the complex reality of what is happening in the college. Reality must include the experience and wisdom of the college's trustees and officers who interpret and use the statistics for the betterment of the college.

7. Finally, the statistics developed with this workbook are simple by design. While simplicity is a virtue, the statistics can be only rough approximations. The uniqueness of the college will not be readily seen in the statistics. Again, interpretation by the college's trustees and officers is the only way this workbook approach can be helpful.

# CHAPTER 1

## The Framework for Self-Assessment

To some extent, it is not difficult to analyze the financial strength of a small independent college; astute business officers have been doing so for generations. In general, they look at how much cash is in the bank now compared with last month, or last year; trends in applications and enrollments; the competitiveness of faculty salaries; the condition of the college plant; and the use of available fund balances.

The design of this workbook is based on the observations of a number of such business officers who have served on accreditation teams and engaged in private consulting, while keeping their own colleges vital and financially strong. This self-assessment workbook is an attempt to put the collective wisdom of these business officers into a framework that can be employed and used by presidents, business officers and trustees of other colleges. The workbook is intended to aid college presidents and business officers in the study of their institution's financial condition.

The workbook has been designed to include three tiers. The first tier is the calculation and examination of a limited number of key statistics. The statistics provide information in the following broad areas, as illustrated in the accompanying chart:

- Financial Strength
- Estimated Risk
- Changes Affecting Financial Resources
- Changes in Nonfinancial Resources

At the first-tier level, the statistics give a rough approximation of the college's financial position. The workbook is designed to encourage the president or business officer to develop the rationale or set of assumptions supporting each of the calculated statistics. In this manner an initial scenario of the college's complete financial condition is sketched out. The statistics are designed such that inconsistent or unsupported assumptions are identified. For statistics that signal potential financial weaknesses or that are without reasonable supporting explanations, a second and third tier should be processed. (Tiers two and three will be developed in subsequent research efforts.)

### Philosophy of Financial Strength

The statistics presented in this workbook have been selected for several reasons. First, they are usually readily available from the institution's own records. (If they are not, a case exists for weakness in the

**Financial Analysis**
**A Structure for Indicators**
**In Small Independent Colleges**

**Financial Strength**

- Long-term:

  $\frac{\text{Endowment Market Value}}{\text{Operating Expenses}}$

- Intermediate-term:

  $\frac{\text{Available Fund Balances}}{\text{Operating Expenses}}$

- Short-term:

  $\frac{\text{Current Fund Assets}}{\text{Current Fund Liabilities}}$

**Changes Affecting Financial Resources**

- Net revenues from students
- Revenues from government agencies
- Current fund private gifts used
- Current fund endowment income used
- Operating expenses per FTE student

**Estimated Risk**

- Long-term:
  - a. Fixed commitments
  - b. $\frac{\text{Long-term Debt}}{\text{Current Fund Revenues}}$
- Intermediate-term:

  Dependence on restricted income
- Short-term:
  - a. Enrollment fluctuation
  - b. $\frac{\text{Current Fund Liabilities}}{\text{Current Fund Revenues}}$

**Changes in Nonfinancial Resources**

- Students
  - a. Applications/Acceptances/Matriculations/Retention
  - b. Average freshman test scores
- Instructional expenses per operating expenses
- Average faculty salary
- Estimated deferred maintenance

college's management information system.)

Second, they have been selected to cover a broad spectrum of the college's activities to give a picture of the college's financial well-being. To be financially healthy, a college should have the financial flexibility to respond to changes in the political, social, and economic environment in which it exists. Inflation, increasing regulatory requirements, declining enrollments, increasing tenure ratios, and changing student academic interests are some of the pressures that may adversely affect a college. The institution must have and use the capacity to adjust its resources to best meet these pressures.

## Theory for Small Independent College Financial Condition

The major premise of the theory is that a college's overall condition can be meaningfully characterized by measuring available resources, trends in these resources, and the institution's special needs for these resources. The focus of the theory is on financial resources, but other resources such as faculty, students, fixed assets, and programmatic resources are examined as well. An institution's financial status is difficult to evaluate; changes in one type of resource, such as tuition, may foreshadow or predict changes in other resources, such as student financial aid. The interrelationships that do exist among financial resources require a comprehensive examination of the institution's total financial structure.

The workbook's focus is on financial resources, largely because of the belief that internal and external decisions and events affect these resources first. Hence, a clear understanding of the trends and the condition of financial resources is important to the early detection of any institutional decline. Of course, this focus also benefits from the objectivity of many financial indicators.

The amount and condition of an institution's resources are partially determined by internal factors such as policy decisions and their implementations. The amount and condition of resources are also determined by external factors such as inflation and income availability. Thus, resource measures are symptoms of those internal and external factors that are the causes of institutional decline or improvement.

Accumulated financial wealth is of great importance to small independent colleges. A sufficient store of available funds gives an institution the ability to react to changes in the environment. An institution with sufficient financial resources can withstand adverse trends and has the flexibility to institute changes at opportune moments to reverse the trends. Institutions with sufficient financial resources can experiment with their mission or program with minimal concern that increased costs will curtail their entire operation.

There is no claim here that adequate financial resources are indicative

of the desire to innovate or take chances; such resources merely provide the opportunity to weather storms and experiment where possible without jeopardizing the institution's future. Institutions with limited financial resources may still experiment, but at greater risk than more financially resourceful institutions.

The necessary level of financial resources is partially determined by a set of factors that causes the institution to be inherently exposed to risk. These factors determine the size and type of institutional financial resources necessary to provide flexibility and protection from adverse trends.

Ideas incorporated into the workbook include:

- Recognition that highly volatile income sources, such as restricted revenues, require the institution to buffer itself with greater financial resources. The more dependent an institution is on uncertain funds, the greater the need for more financial resources.

- The concept that greater financial resources are necessary for institutions with a large proportion of their budgets committed to relatively fixed expenses, such as debt service and salaries of tenured faculty. These institutions must balance the inflexibility of their expense structure with the flexibility of financial resources.

- The concept that resources other than financial may also bear the brunt of external or internal pressures. The number and quality of the faculty, students, program offerings, and the condition of buildings are examples of institutional resources that affect the institution's financial condition.

These major factors have been built into the self-assessment workbook and are the basis for the statistics that have been selected. Following are more detailed descriptions of the four broad analytic categories shown on page 6.

## Financial Strength

In the research that led to the workbook, several excellent proxies were found that approximate the institution's financial resource levels and their trends. These proxies or statistics estimate the relative ability of the institution to take risks. For example, the statistic used to estimate long-term financial resources is the ratio of the institution's endowment market value to total operating expenses. This ratio provides a useful proxy measure for estimating the adequacy of the institution's capital base and how it has changed.

In the intermediate-term, the ratio of the sum of the fund balances for the current fund and the quasi-endowment fund to total operating expenses is used to evaluate the institution's overall available reserves.

In the short-term, the assets and the liabilities of the current fund are examined. The ratio of current fund assets to liabilities gives an indication of the immediate ability of the institution to pay its most pressing debts. Ratios below 1.0 indicate that the institution lacks current assets to pay immediate bills.

Estimated Risk

Also developed are useful proxies for estimating the risk exposure of the institution. The more the institution is exposed to financial risk, the greater the need for increased financial resources. In the long-term, the ratio of long-term debt to total revenue is a useful proxy for measuring the institution's commitment to continuing payments in proportion to its revenue sources.

For the intermediate-term, the ratio of restricted income to total income and the ratio of fixed commitments, such as tenured faculty salaries and debt payments, to total revenue are used. Many restricted revenues are short-term while tenured faculty and debt service are not. Heavy reliance on restricted revenues generally constitutes increased exposure to financial risk.

There are two proxies for short-term risk exposure. One is the ratio of short-term debt to annual revenue. This shows the institution's relative ability to meet its commitments. The second short-term proxy is a measure of the volatility of tuition revenues as a proportion of total revenue. This proxy is computed as the difference between the highest real tuition level and the lowest real tuition level over the most recent five years divided by total revenue for the current year.

Changes Affecting Financial Resources

Essential to the diagnosis of financial condition is the examination of the factors which cause decline or expansion of resources. Net real tuition revenue trends indicate the institution's ability to continue drawing support from students. Private gifts, government support, and endowment income as proportions of overall revenue indicate important trends in the ability of the institution to capture resources and the ability of the environment to provide this support. Finally, the pressure of cost increases and the ability of the institution to successfully manage these pressures are indicated by the trends in total real costs per student.

Changes in Nonfinancial Resources

Also identified are proxies that measure changes in nonfinancial resources. For example, the real value of average faculty salaries focuses on the faculty as a resource. The institution's priority for the instruction program as a resource can be monitored by calculating the proportion of the budget expended for instruction. Real instruction cost

per student is another measure which is of importance. Freshman entrance test scores are useful indicators of the changes in student resources. Finally, estimates of the deferred maintenance give an approximate indication of changes in the effort to maintain physical resources in good condition.

# CHAPTER 2

## Calculation of the Statistics

This chapter, which is highly structured in typical workbook format, provides a means for simplifying the calculations of statistics and facilitates the process of analyzing statistical results. The chapter is divided into the following sections:

SECTION A: College Profile

SECTION B: Data Worksheet

SECTION C: Definition of Terms

SECTION D: Financial Strength

SECTION E: Estimated Risk

SECTION F: Changes Affecting Financial Resources

SECTION G: Changes in Nonfinancial Resources

The College Profile in Section A is intended to compile relevant information that will be useful in understanding the significance of statistics. The profile will also prove useful when describing the significance of the statistics to trustees or to other colleges that wish to share information.

The Data Worksheet in Section B is a device for gathering all data elements necessary to calculate the statistics. Most, if not all, should be readily available in existing institutional records. The Definition of Terms section is included to facilitate the use of common data that will aid in using comparative statistics.

Sections D through G include worksheets used to calculate the statistics. A separate worksheet is provided for each calculation. Included with each worksheet is a description of the statistic, its significance, and limitations in its use; in some cases, data from similar institutions are also shown.

Another major feature of the worksheet is space for the self-assessor to describe the meaning of the statistical value in terms of how it relates to other values calculated and in comparison with similar institutions.

SECTION A

COLLEGE PROFILE

College name:_____ Enrollment (1978 Fall FTE):_____

Location :_____ FICE Identification :_____

_____ Carnegie Classification :_____

Church Affiliation(if any):_____

Current fund revenues 1978-79 $_____

Institutional mission_____

_____

_____

_____

Financial relationship to church (if any)_____

_____

_____

Description of major state-supported programs (student financial aid, special academic programs, etc.)_____

_____

_____

Description of major federally supported programs (Title III, student aid, etc.)

_____

_____

_____

SECTION B

DATA WORKSHEET

NOTE: This data sheet is a useful means for gathering all of the information needed to calculate the statistics. Each line is discrete; the columns are not intended to be added.

STATEMENT OF SELECTED CURRENT FUND REVENUES, EXPENDITURES, AND OTHER CHANGES ($000)

| | Fiscal Years Ending | | | | | |
|---|---|---|---|---|---|---|
| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
| Revenues | | | | | | |
| Tuition and fees | | | | | | |
| Government appropriations | | | | | | |
| Federal | | | | | | |
| State | | | | | | |
| Local | | | | | | |
| Government grants and contracts | | | | | | |
| Federal | | | | | | |
| State | | | | | | |
| Local | | | | | | |
| Private gifts, grants, and contracts | | | | | | |
| Endowment income | | | | | | |
| Housing and food service revenues | | | | | | |
| Total current fund restricted revenues | | | | | | |
| Total current fund revenues | | | | | | |
| Expenditures | | | | | | |
| Instruction | | | | | | |
| Unrestricted student aid grants | | | | | | |
| Total educational and general expenditures and mandatory transfers | | | | | | |

[continued on next page]

| | Fiscal Years Ending | | | | | |
|---|---|---|---|---|---|---|
| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
| **BALANCE SHEET** | | | | | | |
| Current fund assets | | | | | | |
| Current fund liabilities | | | | | | |
| Annual debt service payments (all funds) | | | | | | |
| Endowment market value (year end) | | | | | | |
| Fund Balances: | | | | | | |
| Current | | | | | | |
| Quasi-endowment | | | | | | |
| **OTHER SOURCES** | | | | | | |
| Total FTE enrollment (Fall term) | | | | | | |
| Applications (Freshman class only) | | | | | | |
| Acceptances (Freshman class only) | | | | | | |
| Matriculations (Freshman class only) | | | | | | |
| Retention (Second year) | | | | | | |
| Average freshman entrance test scores | | | | | | |
| Estimated tenured faculty compensation (include fringe benefits) | | | | | | |
| Average faculty salary (AAUP salary survey or equivalent) | | | | | | |
| Estimated deferred maintenance | | | | | | |

## SECTION C

## DEFINITION OF TERMS

Annual Debt Service Payments: All interest and principal payments on all debts due within one year.

Current Fund Assets: All cash, accounts receivable (including unbilled charges), notes receivable, undrawn appropriations, investments, amounts due from other fund groups, inventories, prepaid expenses, and deferred charges.

Current Fund Liabilities: All accounts and notes payable, accrued liabilities, deposits, amounts due to other fund groups, and deferred credits.

Current Fund (Total): Those economic resources of a college or university that are expendable for the purpose of performing the primary missions of the institution -- instruction, research, and public service.

Educational and General Expenditures: Includes expenditures for all operations related to institution, research, public service, academic support, student services, institutional support, operation and maintenance of plant, and scholarships and fellowships.

Enrollment (Fall FTE): A constructed count of the equivalent number of full-time students enrolled in courses as of the fall semester by unit or by department of instruction or by student program.

Estimated Deferred Maintenance: Items of maintenance and repair which cannot be corrected within twelve months of the date the item was noted.

Estimated Tenured Faculty Compensation: Gross compensation (including fringe benefits) paid to or on behalf of tenured faculty.

HEPI (Higher Education Price Indexes): D. Kent Halstead, Higher Education Prices and Price Indexes (and annual supplements). Washington, D.C.: U.S. Government Printing Office, 1975.

Long-Term Debt: Total debt payable more than one year from the fiscal year-end.

Mandatory Transfers: Includes all transfers from the current fund group to other fund groups arising out of (1) binding agreements related to the financing of educational plant, such as amounts for debt retirement, interest, and required provisions for renewals and replacements of plant, not financed from other sources; and (2) grant agreements with agencies of the federal government, donors, and other organizations to match gifts and grants to loan and other funds.

Quasi-Endowment: Funds that the governing board of an institution, rather than a donor or other external agency, has determined are to be retained or invested.

Restricted Current Fund Revenues: Includes restricted resources to the extent that such funds were expended.

Unrestricted Current Fund Revenues: Includes all unrestricted gifts, grants, and other resources earned during the reporting period.

## SECTION D

## FINANCIAL STRENGTH

- Long-term:

$$\frac{\text{Endowment Market Value}}{\text{Operating Expenses}}$$

- Intermediate-term:

$$\frac{\text{Available Fund Balances}}{\text{Operating Expenses}}$$

- Short-term:

$$\frac{\text{Current Fund Assets}}{\text{Current Fund Liabilities}}$$

# CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Financial Strength: Long-Term

Selected Statistic: $\frac{\text{Endowment Market Value}}{\text{Educational and General Expenses + Mandatory Transfers (E\&G + MT)}}$

Significance of Statistic:

This indicator shows the financial resources which can be used over the long term to give the institution a competitive advantage. Income from endowment may be used to provide a net price discount to students, a quality bonus to the educational program, or both. By dividing the fund balance by current fund revenues, a comparison of the endowment in terms of the institution's budget is possible.

Calculation Worksheet:

| | ($000) 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| A. Endowment Market Value Year End | $ | $ | $ | $ | $ | $ |
| B. E&G + MT | $ | $ | $ | $ | $ | $ |
| A/B | | | | | | |

Values for Similar Institutions:

Liberal Arts Colleges II
JMA Database

| Enrollment | Median Values 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| FTE ≤ 800 | (38).494 | (40).468 | (43).460 | (41).403 | | |
| FTE > 800 | (47).501 | (50).586 | (50).554 | (50).455 | | |
| Total | (85).494 | (90).547 | (93).519 | (91).429 | | |

Note: Number of institutions in sample are shown in parentheses.

Source: Audited Financial Statements Coded to NACUBO Standards, John Minter Associates, Boulder, Colorado

## ANALYSIS OF STATISTICAL VALUES

Limitations:

The endowment fund balance does not always accurately reflect the earning potential of these assets. Further, many other factors may effectively negate the value of this resource over the long run, including income restrictions, high endowment payout policies, and poor budgeting discipline.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Financial Strength: Intermediate-Term

Selected Statistic: $\frac{\text{Available Fund Balances}}{\text{Educational and General Expenses + Mandatory Transfers (E\&G + MT)}}$

Significance of Statistic:

This indicator shows the relative amount of financial resources available to respond to a crisis of from one- to three-years in duration. In a sense, the resulting fraction is the percentage of a year in which reserves could be used to keep the institution going if all other income sources were to dry up. Brief or experimental innovations could also be funded from these resources. These fund balances should include reserves for current purposes. An institution should have sufficient funds in these balances to sustain it through 95% of all possible two- to three-year crises, for example, a 20% decline in enrollment. Each institution must determine for itself the desired level of such reserves.

Calculation Worksheet:

| | ($000) | | | | | |
|---|---|---|---|---|---|---|
| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
| Available Fund Balances (Year End): | | | | | | |
| Current Fund (Total) | $ | $ | $ | $ | $ | $ |
| Quasi-Endowment | $ | $ | $ | $ | $ | $ |
| (A) Total | $ | $ | $ | $ | $ | $ |
| (B) E&G + MT | $ | $ | $ | $ | $ | $ |
| A/B | | | | | | |

Values for Similar Institutions:

Liberal Arts Colleges II
JMA Database

| | Median Values | | | | | |
|---|---|---|---|---|---|---|
| Enrollment | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
| FTE ≤ 800 | (52).047 | (52).026 | (52).011 | (52)-.025 | | |
| FTE > 800 | (59).174 | (59).197 | (59).194 | (58) .152 | | |
| Total | (111).122 | (111).103 | (111).109 | (110) .118 | | |

Note: Number of institutions in sample are shown in parentheses.

Source: Audited Financial Statements Coded to NACUBO Standards, John Minter Associates, Boulder, Colorado

## ANALYSIS OF STATISTICAL VALUES

**Limitations:**

Not all the assets of the current fund and quasi-endowment fund are sufficiently liquid to be useful even over a two- or three-year period. To the extent that funds are uncommitted in the unexpended plant fund, this indicator understates usable resources. Distinguishing between the quasi-endowment and the pure endowment fund balances is often difficult, especially with regard to realized gains and losses.

**Explanation of College's Calculated Statistical Value:**

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Financial Strength: Short-Term

Selected Statistic: $\frac{\text{Current Fund Assets}}{\text{Current Fund Liabilities}}$

Significance of Statistic:

This indicator shows the coverage that the institution's most liquid assets have of debts that will be due within one year. When this ratio is less than one, the institution must depend on the flow of cash from its current operations just to stay ahead of its creditors. Because many current fund assets are not liquid enough to pay these kinds of debts, ratios greater than one are recommended. Institutions with an insufficient level of current fund assets, or short-term financial resources, will be strongly affected by immediate changes in the environment, which will require action.

Calculation Worksheet:

| | ($000) 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| A. Current Fund Assets | $ | $ | $ | $ | $ | $ |
| B. Current Fund Liabilities | $ | $ | $ | $ | $ | $ |
| A/B | | | | | | |

Values for Similar Institutions:

Liberal Arts Colleges II
JMA Database

| Enrollment | Median Values 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| FTE ≤ 800 | (52) .82 | (52) .856 | (52) .953 | (52) .824 | | |
| FTE > 800 | (59)1.314 | (59)1.324 | (59)1.311 | (58)1.263 | | |
| Total | (111)1.181 | (111)1.150 | (111)1.255 | (110)1.186 | | |

Note: Number of institutions in sample are shown in parentheses

Source: Audited Financial Statements Coded to NACUBO Standards, John Minter Associates, Boulder, Colorado

## ANALYSIS OF STATISTICAL VALUES

Limitations:

Institutions have been known to survive pressing financial crises with insufficient current assets by selling land, liquidating quasi-endowment assets, or by refinancing current debt with long-term notes guaranteed by previously unpledged assets (often not without some cost to reputation or to the value of the assets). This statistic also varies somewhat depending on the time of year in which it is calculated, making it difficult to set a standard or to make comparisons.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

# SECTION E

# ESTIMATED RISK

- Long-term:
  - a. Fixed commitments
  - b. $\frac{\text{Long-term Debt}}{\text{Current Fund Revenues}}$
- Intermediate-term:
  - Dependence on restricted income
- Short-term:
  - a. Enrollment fluctuation
  - b. $\frac{\text{Current Fund Liabilities}}{\text{Current Fund Revenues}}$

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Estimated Risk: Long-term

Selected Statistic:

Part One: $\frac{\text{Estimated Tenured Faculty Compensation \& Annual Debt Service}}{\text{Current Fund Revenues}}$

Part Two: $\frac{\text{Long-Term Debt}}{\text{Current Fund Revenues}}$

Significance of Statistic:

These ratios indicate the proportion of current fund revenues which go to costs over which the institution has the least discretion. Although it is possible to reduce the costs in each of these areas, such actions are drastic. The less flexibility an institution has in the management of its budgeted expenses, the more financial resources it needs to cushion possible shocks. Institutions with limited control over expenses, faced with revenue declines, need a longer time to adjust and hence need larger reserves to protect them during the decline.

Calculation Worksheet:

| | ($000) 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| Part One: | | | | | | |
| Estimated Tenured Faculty Compensation | $ | $ | $ | $ | $ | $ |
| Annual Debt Service | $ | $ | $ | $ | $ | $ |
| ($A_1$) Total | $ | $ | $ | $ | $ | $ |
| ($B_1$) Current Fund Revenues | $ | $ | $ | $ | $ | $ |
| $A_1/B_1$ | | | | | | |
| Part Two: | | | | | | |
| ($A_2$) Long-term Debt | $ | $ | $ | $ | $ | $ |
| ($B_2$) Current Fund Revenues | $ | $ | $ | $ | $ | $ |
| $A_2/B_2$ | | | | | | |

Values for Similar Institutions:

Part One: The maximum value for the statistic should be approximately 30%. Values above this normally reflect very high levels of fixed obligations.

Part Two: Not available

## ANALYSIS OF STATISTICAL VALUES

Limitations:

Institutions have many other fixed and semi-fixed costs than the ones listed. The ratios listed here were selected because of the trauma involved in taking actions to reduce them. The calculated ratios give an understated picture of the fixed-cost exposure of the institution. The burden of long-term debt depends to a great extent on the interest rate charged on the bonds. Institutions with many resources very often feel confident with larger amounts of long-term debt, and thus for them high, long-term debt levels are signs of optimism contrary to the implications of the statistics.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

**Category:** Estimated Risk: Intermediate-term

**Selected Statistic:** $\frac{\text{Current Fund Restricted Revenues}}{\text{Current Fund Revenues}}$

**Significance of Statistic:**

The risk of discontinuation of restricted revenues is normally higher than the risk of discontinuation of unrestricted revenues. Most restricted revenues are for projects of fixed duration; these revenues will cease. The more an institution depends on restricted revenues, the greater financial risk it is running.

**Calculation Worksheet:**

| | ($000) 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| (A) Current Fund Restricted Revenues | $ | $ | $ | $ | $ | $ |
| (B) Current Fund Revenues | $ | $ | $ | $ | $ | $ |
| A/B | | | | | | |

**Values for Similar Institutions:** Not available

## ANALYSIS OF STATISTICAL VALUES

**Limitations:**

Some restricted revenues may be more dependable than some unrestricted revenues. Also, there are other ways to absorb the distress caused by the completion of a project, for example, by making sure all expenditures (including salary costs) cease at the completion of the project.

**Explanation of College's Calculated Statistical Value:**

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Estimated Risk: Short-term

Selected Statistic: Part One: Enrollment Fluctuation Part Two: $\frac{\text{Current Fund Liabilities}}{\text{Current Fund Revenues}}$

Significance of Statistic:

Part One: The greater the swing in revenue from this key source in the past, the greater the probability of continued fluctuations. Both growth and decline require extra financial resources to finance the adjustment.

Part Two: The size of the current fund liabilities compared to the annual revenue rate also indicates risk: the risk that the institution will be unable to pay its debts.

Calculation Worksheet:

($000)

| Part One: | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| Tuition + fees + housing and food service revenues | $ | $ | $ | $ | $ | $ |
| Less unrestricted student aid grants | $ | $ | $ | $ | $ | $ |
| Net revenue from students | $ | $ | $ | $ | $ | $ |
| HEPI (1967=100) | 153.1 | 166.2 | 177.2 | 188.7 | 201.3 | |
| Deflated net student revenue | $ | $ | $ | $ | $ | $ |
| Highest - lowest student revenue | | | $ | | | |
| As a proportion of E&G + MT | | | % | | | |
| Part Two: | | | | | | |
| ($A_2$) Current Fund Liabilities | $ | $ | $ | $ | $ | $ |
| ($B_2$) Current Fund Revenues | $ | $ | $ | $ | $ | $ |
| $A_2/B_2$ | | | | | | |

Values for Similar Institutions:

Part One: Not available

Part Two:

Liberal Arts Colleges II
JMA Database

| Enrollment | Median Values 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| FTE $\leq$ 800 | (52).180 | (52).177 | (52).191 | (52).190 | | |
| FTE $>$ 800 | (59).153 | (59).152 | (59).151 | (58).145 | | |
| Total | (111).157 | (111).165 | (111).164 | (110).157 | | |

Note: Number of institutions in sample are shown in parentheses.

Source: Audited Financial Statements Coded to NACUBO Standards, John Minter Associates, Boulder, Colorado

## ANALYSIS OF STATISTICAL VALUES

Limitations:

Steady growth in enrollments must be interpreted differently from declines or fluctuations. While growth does generally take additional financing, and enrollment growth is often difficult to sustain (the last one hundred students recruited are the hardest to retain), growth is still easier to manage than decline. Thus, comparisons of institutions with similar fluctuations but different trends should be done with caution.

This statistic does not adequately reflect the many factors that cause enrollments to fluctuate. Second tier analysis will generally be required to understand the causes in enrollment changes.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## SECTION F

## CHANGES AFFECTING FINANCIAL RESOURCES

- Net revenues from students
- Revenues from government agencies
- Current fund private gifts used
- Current fund endowment income used
- Operating expenses per FTE student

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Changes Affecting Financial Resources

Selected Statistic: Change in Net Revenues from Students

Significance of Statistic:

This important indicator is in part a predictor of changes in financial and nonfinancial resources. After deducting unrestricted student aid grants, a measure of direct support from students is derived. Even though enrollments may be increasing, heavy financial aid subsidies or below-inflation tuition increases may actually be allowing a decline in support from students. For independent institutions, support from students is an extremely important revenue source, and changes in this figure are of major concern. Because inflation is taken out in the calculation, 0% increases would indicate that the institution is staying even.

Calculation Worksheet:

| | ($000) 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| Tuition and fees | $ | $ | $ | $ | $ | $ |
| Housing & food service revenues | $ | $ | $ | $ | $ | $ |
| Total | $ | $ | $ | $ | $ | $ |
| Less unrestricted student aid grants | $ | $ | $ | $ | $ | $ |
| Total net student revenues | $ | $ | $ | $ | $ | $ |
| HEPI | 153.1 | 166.2 | 177.2 | 188.7 | 201.3 | |
| Deflated net student revenues | $ | $ | $ | $ | $ | $ |
| % change over prior year | | | | | | |

Values for Similar Institutions: Not available

## ANALYSIS OF STATISTICAL VALUES

Limitations:

This statistic does not allow for the replacement of student-derived revenues by revenues from other sources. Thus, institutions which have successfully raised restricted gift income for student scholarships to reduce the cost to students will show a negative rate of increase in net revenue from students. Given the goal to reduce the student's burden, this "negative" indicator is in fact positive.

This indicator is a complex mixture of many potential changes: enrollment changes, tuition changes, housing occupancy changes, and unrestricted student aid policy changes. Further analysis must be done to make sense of any trends revealed in this first-tier indicator.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Changes in Affecting Financial Resources

Selected Statistic: Change in Support from Government Agencies

Significance of Statistic:

Tracing changes in government support is another way to attempt to predict future declines or improvements in institutional resource levels. Usually this source has much less impact than private and student sources for small independent institutions.

Calculation Worksheet:

| | ($000) 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| Government Appropriations: | | | | | | |
| Federal | $ | $ | $ | $ | $ | $ |
| State | $ | $ | $ | $ | $ | $ |
| Local | $ | $ | $ | $ | $ | $ |
| (A) Total government appropriations | $ | $ | $ | $ | $ | $ |
| (B) Total current fund revenues | $ | $ | $ | $ | $ | $ |
| A/B | | | | | | |

Values for Similar Institutions:

Liberal Arts Colleges II
JMA Database

| Enrollment | Median Values 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| FTE ≤ 800 | (52).055 | (52).065 | (52).074 | (52).079 | | |
| FTE > 800 | (59).061 | (59).060 | (59).057 | (59).062 | | |
| Total | (111).058 | (111).065 | (111).067 | (111).069 | | |

Note: Number of institutions in sample are shown in parentheses.

Source: Audited Financial Statements Coded to NACUBO Standards, John Minter Associates, Boulder, Colorado

## ANALYSIS OF STATISTICAL VALUES

Limitations:

Because of the relatively low level of governmental support for many institutions, small changes in absolute levels of support may cause larger percentage increases.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

# CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Changes Affecting Financial Resources

Selected Statistic: Change in Current Fund Private Giving

Significance of Statistic:

This is an important source of financial resources for independent colleges. Changes in this figure are an important diagnostic for estimating the success of the institution's fund-raising program.

Calculation Worksheet:

($000)

| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| (A) Current fund private gifts, grants, and contracts | $ | $ | $ | $ | $ | $ |
| (B) Total current fund revenues | $ | $ | $ | $ | $ | $ |
| A/B | | | | | | |

Values for Similar Institutions:

Liberal Arts Colleges II
JMA Database

| | Median Values | | | | | |
|---|---|---|---|---|---|---|
| Enrollment | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
| FTE ≤ 800 | (52).130 | (52).138 | (52).126 | (52).117 | | |
| FTE > 800 | (59).108 | (59).111 | (59).119 | (59).122 | | |
| Total | (111).112 | (111).127 | (111).123 | (111).122 | | |

Note: Number of institutions in sample are shown in parentheses.

Source: Audited Financial Statements Coded to NACUBO Standards, John Minter Associates, Boulder, Colorado

## ANALYSIS OF STATISTICAL VALUES

Limitations:

The large fluctuations that are normal in this statistic make analysis very difficult. It is important for the analyst to try and discern general trends. Sometimes it is helpful to remove any large nonrecurring gifts to better understand underlying trends. Also, analyzing the gifts by source is extremely helpful for finding strengths and weaknesses.

A further problem for analysis exists because this indicator sums restricted and unrestricted gifts together, even though restricted gifts are counted only as they are used. A separate analysis for each will be more revealing of important trends.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Changes Affecting Financial Resources

Selected Statistic: Change in Endowment Income

Significance of Statistic:

The interpretation of this statistic is similar to the interpretation of the private gifts statistic.

Calculation Worksheet:

| | ($000) 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| (A) Endowment income | $ | $ | $ | $ | $ | $ |
| (B) Total current fund revenues | $ | $ | $ | $ | $ | $ |
| A/B | | | | | | |

Values for Similar Institutions:

Liberal Arts Colleges II
JMA Database

| Enrollment | Median Values 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| FTE ≤ 800 | (39).025 | (40).024 | (40).022 | (41).021 | | |
| FTE > 800 | (52).022 | (54).021 | (53).023 | (53).021 | | |
| Total | (91).023 | (94).023 | (93).022 | (94).021 | | |

Note: Number of institutions in sample are shown in parentheses.

Source: Audited Financial Statements Coded to NACUBO Standards, John Minter Associates, Boulder, Colorado

## ANALYSIS OF STATISTICAL VALUES

**Limitations:**

It is difficult to interpret this statistic, given its stock market dependence. Analysis of endowment performance is a complex affair and analysts are referred to NACUBO's Comparative Performance Study.

**Explanation of College's Calculated Statistical Value:**

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Changes Affecting Financial Resources

Selected Statistic: Change in Educational and General Expenditures and Mandatory Transfers (E&G + MT) per Student FTE

Significance of Statistic:

Large increases in real costs per student indicate the institution's difficulty in combating forces of increasing costs and declining enrollments. Unless revenues can be increased on a per-student basis to keep up with costs, institutional resources will decline.

Calculation Worksheet:

($000)

| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| (A) E&G + MT | $ | $ | $ | $ | $ | $ |
| (B) Total enrollment (Fall FTE) | | | | | | |
| A/B | | | | | | |
| HEPI (1967=100) | 153.1 | 166.2 | 177.2 | 188.7 | 201.3 | |
| % change over prior year | | | | | | |

Values for Similar Institutions:

Liberal Arts Colleges II
JMA Database

Median Values

| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| FTE ≤ 800 (Actual) | (52)$2,774 | (52)$2,973 | (52)$3,239 | (52)$3,613 | | |
| Deflated | 1,812 | 1,789 | 1,828 | 1,915 | | |
| % change over prior year | | -1.3% | 2.2% | 4.8% | | |
| FTE > 800 (Actual) | (59)$2,682 | (59)$2,989 | (59)$3,227 | (59)$3,475 | | |
| Deflated | 1,752 | 1,798 | 1,821 | 1,842 | | |
| % change over prior year | | 2.7% | 1.3% | 1.1% | | |
| Total (Actual) | (111)$2,760 | (111)$2,983 | (111)$3,227 | (111)$3,567 | | |
| Deflated | 1,803 | 1,795 | 1,821 | 1,890 | | |
| % change over prior year | | - .4% | 1.5% | 3.8% | | |

Note: Number of institutions in sample are shown in parentheses.

Source: Audited Financial Statements Coded to NACUBO Standards, John Minter Associates, Boulder, Colorado

## ANALYSIS OF STATISTICAL VALUES

**Limitations:**

Statistical values will not distinguish changes due to quality of cost control.

**Explanation of College's Calculated Statistical Value:**

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## SECTION G

## CHANGES IN NONFINANCIAL RESOURCES

- Students
  - a. Applications/Acceptances/ Matriculations/Retention
  - b. Average freshman test scores
- Instructional expenses per operating expenses
- Average faculty salary
- Estimated deferred maintenance

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Changes in Nonfinancial Resources

Selected Statistic: Part A. Relationships of Applications, Acceptances, Matriculations, and Retention

Part B. Average Freshman Entrance Test Scores

Significance of Statistic:

One measure, which is closely related to an institution's mission, is the average entrance test score of entering students. No value judgments are intended by this indicator. The purpose of the indicator is to trace changes in the average entering student test score, which may give another dimension to the institution's resources. Admission of students at a different level of preparation than had previously been admitted may be part of an institution's strategy to maintain its financial resources. Certainly both resources should be monitored simultaneously.

Calculation Worksheet:

| | | ($000) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
| | | % of Applied | | | | | |
| Part A | | | | | | | |
| Applied | # | (100) | (100) | (100) | (100) | (100) | (100) |
| Admitted | | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) |
| Matriculants | | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) |
| Retention in second year (% of matriculated) | | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) |
| Part B | | | | | | | |
| Average freshman entrance test scores | | | | | | | |

Values for Similar Institutions: Not available

## ANALYSIS OF STATISTICAL VALUES

Limitations:

National changes in average test scores must be taken into consideration. These statistics must be understood in the context of the institution's goals and objectives.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

**Category:** Changes in Nonfinancial Resources

**Selected Statistic:** Change in Instructional Expenses as a Proportion of Educational and General Expenditures and Mandatory Transfers (E&G + MT)

**Significance of Statistic:**

Instruction is an important resource of the institution. If financial pressures force down the proportion of budget spent on instruction, then this resource is being sacrificed to other pressures. Many small independent colleges are being forced to put more emphasis on student recruitment, fund-raising and utilities budgets. Student financial aid is also taking a larger portion of revenues. To the extent that the instructional program is forced to grow more slowly than the rest of the budget, it is receiving a smaller portion of total resources.

**Calculation Worksheet:**

($000)

| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| (A) Instructional expenses | $ | $ | $ | $ | $ | $ |
| (B) E&G + MT | $ | $ | $ | $ | $ | $ |
| A/B | | | | | | |

**Values for Similar Institutions:**

Liberal Arts Colleges II
JMA Database

Median Values

| Enrollment | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| FTE ≤ 800 | (52).379 | (51).384 | (52).380 | (52).388 | | |
| FTE > 800 | (59).417 | (59).406 | (59).394 | (59).397 | | |
| Total | (111).405 | (110).394 | (111).391 | (111).396 | | |

Note: Number of institutions in sample are shown in parentheses.

Source: Audited Financial Statements Coded to NACUBO Standards, John Minter Associates, Boulder, Colorado

## ANALYSIS OF STATISTICAL VALUES

Limitations:

Some new budget items are specifically funded by external sources, causing the appearance of decline to instruction. The best example of this is increased federal financial aid channeled through the college's budget. The institution's emphasis on instruction may not in fact be declining; the institution may simply be carrying out the mission of an external agency in addition to its historic mission.

Some institutions may prefer to include academic support costs in the numerator to give a more comprehensive view of instructional emphasis as a proportion of the budget.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

## CRITERIA FOR EVALUATING THE FINANCIAL STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

**Category:** Changes in Nonfinancial Resources

**Selected Statistic:** Change in Average Faculty Salary

**Significance of Statistic:**

This indicator traces the changes in the institution's ability and willingness to keep faculty salaries in line with inflationary trends. The faculty are an important resource of the institution and average salary increases which are above inflation indicate relatively greater emphasis on the part of the institution with respect to this resource.

**Calculation Worksheet:**

| | ($000) | | | | | |
|---|---|---|---|---|---|---|
| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
| Average faculty salary | $ | $ | $ | $ | $ | $ |
| CPI (1971=100) | 117.3 | 130.4 | 139.6 | 147.7 | 157.7 | |
| Deflated average faculty salaries | $ | $ | $ | $ | $ | $ |

**Values for Similar Institutions:** Not available

## ANALYSIS OF STATISTICAL VALUES

Limitations:

Average salary increases neglect starting points; institutions with low pay scales to begin with may, in fact, be making little progress even with above-CPI increases. Compensation is not an exact correlate of quality; other factors such as regional costs of living are neglected. This statistic gives no indication of the range of faculty salaries.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

CRITERIA FOR EVALUATING THE FINANCIAL
STRENGTH OF SMALL INDEPENDENT INSTITUTIONS

Category: Changes in Nonfinancial Resources

Selected Statistic: Estimated Deferred Maintenance

Significance of Statistic:

This statistic provides another dimension of the status of the resources of a financial institution. Some institutions have forestalled drains on resources by deferring maintenance needs.

Calculation Worksheet:

| | ($000) 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|
| (A) Estimated deferred maintenance at end of fiscal year | $ | $ | $ | $ | $ | $ |
| (B) E&G + MT | $ | $ | $ | $ | $ | $ |
| A/B | | | | | | |

Values for Similar Institutions: Not available

## ANALYSIS OF STATISTICAL VALUES

Limitations:

The amounts calculated for deferred maintenance are based on subjective judgments and lack comparability.

Explanation of College's Calculated Statistical Value:

A. How would you explain or characterize this statistic in relation to the other statistical values calculated in the workbook?

B. How would you explain or characterize this statistic as it compares with similar institutions?

# APPENDIX

## A listing of second-tier indicators which may be used to expand the diagnosis of the first tier.

Further research and field testing are needed to develop the calculation procedures and full descriptions of the utility of each statistic. However, this tentative list of second-tier statistics may be used at this time by institutions wishing to attempt a further analysis. This list of second-tier indicators will change significantly as work progresses. These second-tier indicators provide options which by their very detail show the general nature of the first tier.

| First Tier | Second Tier |
|---|---|
| **Financial Strength** | |
| **Financial Strength: Long-term** | |
| $\frac{\text{Endowment Market Value}}{\text{E\&G Expenses and MT}}$ | 1. Payout ratios<br>2. Gifts to endowment as a proportion of market value |
| **Financial Strength: Intermediate-term** | |
| $\frac{\text{Available Fund Balances}}{\text{E\&G Expenses and MT}}$ | 1. Budget forecasts<br>2. History of deficits surpluses<br>3. Student accounts receivable - total amount over 180 days old |
| **Financial Strength: Short-term** | |
| $\frac{\text{Current Fund Assets}}{\text{Current Fund Liabilities}}$ | 1. Monthly cash forecasts<br>2. Proportion of liabilities owed to external agents |
| **Estimated Risk** | |
| **Estimated Risk: Long-term** | |
| $\frac{\text{Estimated "Fixed" Expenses}}{\text{Current Fund Revenues}}$ | 1. Projected debt repayment schedules |

| First Tier | Second Tier |
|---|---|
| Long-ter Debt / Current Fund Revenues | 1. Value of unpledged assets which might serve as collateral<br>2. Current fund revenues |
| **Estimated Risk: Intermediate-term** | |
| Current Fund Restricted Revenues / Current Fund Revenues | 1. Proportion of restricted revenues for projects with completion dates within one year<br>2. Contingency plans for programs of uncertain future |
| **Estimated Risk: Short-term** | |
| Enrollment Stability | 1. Historical student aid flows<br>2. Part-time full-time distribution |
| Current Fund Liabilities / Current Fund Revenues | 1. Short-term borrowing policies<br>2. Amount of lines of credit |
| **Changes Affecting Financial Resources** | |
| Change in Net Revenue from Students | 1. Tuition as a portion of total revenues<br>2. Tuition rank among ten closest competitors |
| Change in Support from Government Agencies | 1. Support for specific programs<br>2. Support by specific agencies |
| Change in Current Fund Giving | 1. Alumni yield<br>2. Average gift<br>3. Restricted vs. unrestricted<br>4. Campaign results |
| Change in Endowment Income | 1. Payout ratios<br>2. Gifts to endowment as a proportion of market value<br>3. Yield rates compared to similar portfolios |

| First Tier | Second Tier |
|---|---|
| **Changes in Nonfinancial Resources** | |
| Students | 1. Completion ratios<br>2. Percentage going on to graduate schools |
| Instruction | 1. Student faculty ratio<br>2. Student services as a portion of expenses<br>3. Administration as a portion of expenses |
| Change in Average Faculty Salary | 1. Proportion of faculty with terminal degrees<br>2. Faculty turnover rates |
| Deferred Maintenance | 1. O&M expenses less utilities (deflated by CPI) per gross square foot of building space |

## NACUBO Board of Directors

Mary M. Lai, President, *Long Island University*
Orie E. Myers, Jr., Vice President, *Emory University*
Roger D. Lowe, Secretary, *Wichita State University*
Robert L. Carr, Treasurer, *Office of the Council of State College and University Presidents* (Washington State)
Dennis Blossom, *University of Missouri*
James H. Colvin, *University of Texas, Austin*
J. Leslie Hicks, Jr., *Denison University*
Walter R. Jahn, *Creighton University*
Herman D. Johnson, *University of California, San Diego*
Anthony D. Lazzaro, *University of Southern California*
George B. May, *Amherst College*
Anthony T. Procelli, *Hofstra University*
George J. Ruschell, *University of Kentucky*
R. Eugene Smith, *Memphis State University*
Robert R. Winterberg, *University of the Pacific*

D. F. Finn, *Executive Vice President*